Autism Paraprofessional Guide

Draft/Possible Slides

HISTORY

What is Autism Spectrum Disorder?

DSM I/II (1952/1968)

Childhood Schizophrenia references "autistic" or "autism."

DSM III (1980)

Infantile Autism + Atypical Autism +

Pervasive Developmental Disorder (PDD)

DSM III-R (1987)

Autistic Disorder + PDD-Not Otherwise Specified

What is Autism Spectrum Disorder?

DSM IV (1994)

Autistic Disorder
Asperger's Syndrome
PDD – Not Otherwise Specified
Childhood Disintegrative Disorder
Rhett's Syndrome


Autism Spectrum Disorders
Autistic Disorder
Asperger's Disorder
Childhood Disintegrative Disorder
Rett's Disorder
Pervasive Developmental Disorder - Not Otherwise Specified

What is Autism Spectrum Disorder?

DSM V (2013) – REMOVED:

Asperger's Syndrome

PDD – Not Otherwise Specified

Childhood Disintegrative Disorder

Rhett's Syndrome

DSM 5 – May 2013

Big Change =

No More Aspergers

What is Autism Spectrum Disorder?

DSM V (2013)

Autism Spectrum Disorder

Three levels of severity – 1, 2, 3

New, but NOT part of Autism - Social (Pragmatic) Communication Disorder

New DSM V – May 2013

- **Autism Spectrum Disorder**

A. Social communication and social interaction
B. Restricted, repetitive patterns of behavior, interests, or activities
C. Symptoms must be present in early childhood
D. Symptoms together limit and impair everyday functioning

DSM 5 – May 2013

Severity Level for ASD	Social Communication	Restricted interests & repetitive behaviors
Level 3 'Requiring very substantial support'	Severe deficits in verbal and nonverbal social communication skills cause severe impairments in functioning; very limited initiation of social interactions and minimal response to social overtures from others.	Preoccupations, fixated rituals and/or repetitive behaviors markedly interfere with functioning in all spheres. Marked distress when rituals or routines are interrupted; very difficult to redirect from fixated interest or returns to it quickly.
Level 2 'Requiring substantial support'	Marked deficits in verbal and nonverbal social communication skills; social impairments apparent even with supports in place; limited initiation of social interactions and reduced or abnormal response to social overtures from others.	RRBs and/or preoccupations or fixated interests appear frequently enough to be obvious to the casual observer and interfere with functioning in a variety of contexts. Distress or frustration is apparent when RRB's are interrupted; difficult to redirect from fixated interest.
Level 1 'Requiring support'	Without supports in place, deficits in social communication cause noticeable impairments. Has difficulty initiating social interactions and demonstrates clear examples of atypical or unsuccessful responses to social overtures of others. May appear to have decreased interest in social interactions.	Rituals and repetitive behaviors (RRB's) cause significant interference with functioning in one or more contexts. Resists attempts by others to interrupt RRB's or to be redirected from fixated interest.

DSM 5 – Autistic Disorder

- How will this affect the Montana Special Education Criteria?

- DSM 5 **>** IDEA Reauthorization **>** Administrative Rules of Montana

  = No Changes Soon.

OPI Autism Criteria History

- Three different criteria were in effect from 1991 to 1998, 1999 only and since 2000.

- The OPI criteria from 1991-1999 specifically excluded students with Asperger's or "autistic-like behavior" (PDD, PDD-NOS) from being eligible for special education services under the disability of autism. Those students could be eligible beginning in 2000.

- The ARM criteria from 1991-1999 also required that the symptoms of autism were present or evident before age three. This excluded most students with Aspergers.

Montana Criteria for Autism

- Based on IDEA criteria which is based on DSM IV.
- Combines criteria for Autism and Asperger's.

Characteristics

Causes

What Causes Autism?
No one knows for sure.

What Causes Autism?

First popular theory -
"Refrigerator Mothers"

What Causes Autism?

Low Birth Weight Vehicle Exhaust Zinc Deficiency Autistics Marrying Autistics Unique Airway Shapes Premature Birth Depressed Mothers Missing Genes on Chromosome 16 The Amount of Average Rainfall Larger Brains

Deficiencies in the Immune System Vaccines Cytokine Levels Intra-amniotic Infection

Prenatal Phthalate Exposure The Environment Mercury in Fillings, Fish or from Coal Plants Birth Complications Too Low Cholesterol Prenatal Ultrasounds Genetic Lack of Brain Response to Facial Expressions Closely Spaced Pregnancies Bottle Feeding Heavy Metal Exposure Anti-depressant Use in Pregnancy Extra Gene Copies

Watching Television Protein Network Deficiencies Hyperactive Local Neural Circuits

Blurring of the molecular differences that normally distinguish different brain regions

Not Taking Prenatal Vitamins Extreme Male Brain Latex Rubber Fever During Pregnancy Diabetes During Pregnancy, High Blood Pressure During Pregnancy Obesity During Pregnancy Being Conceived During Winter

Synaptic abnormalities in the thalamus Lack of Activity in the Fusiform Gyrus

Faulty Testosterone Cycles High Levels of Prenatal Testosterone Advanced Parental Age

Two Sides of the Brain Not Communicating Inability to Digest Proteins Vitamin D Deficiency Mothers who are not nurturing Circumcision High Fructose Corn Syrup Brain Inflammation Genetically Modified Organisms

What Doesn't Cause Autism? Vaccines

The theories:

(1) the combination measles-mumps-rubella vaccine causes autism by damaging the intestinal lining, which allows the entrance of encephalopathic proteins; (Wakefield)

(2) thimerosal, an ethylmercury-containing preservative in some vaccines, is toxic to the central nervous system; and

(3) the simultaneous administration of multiple vaccines overwhelms or weakens the immune system.

What Doesn't Cause Autism? Vaccines

The science:

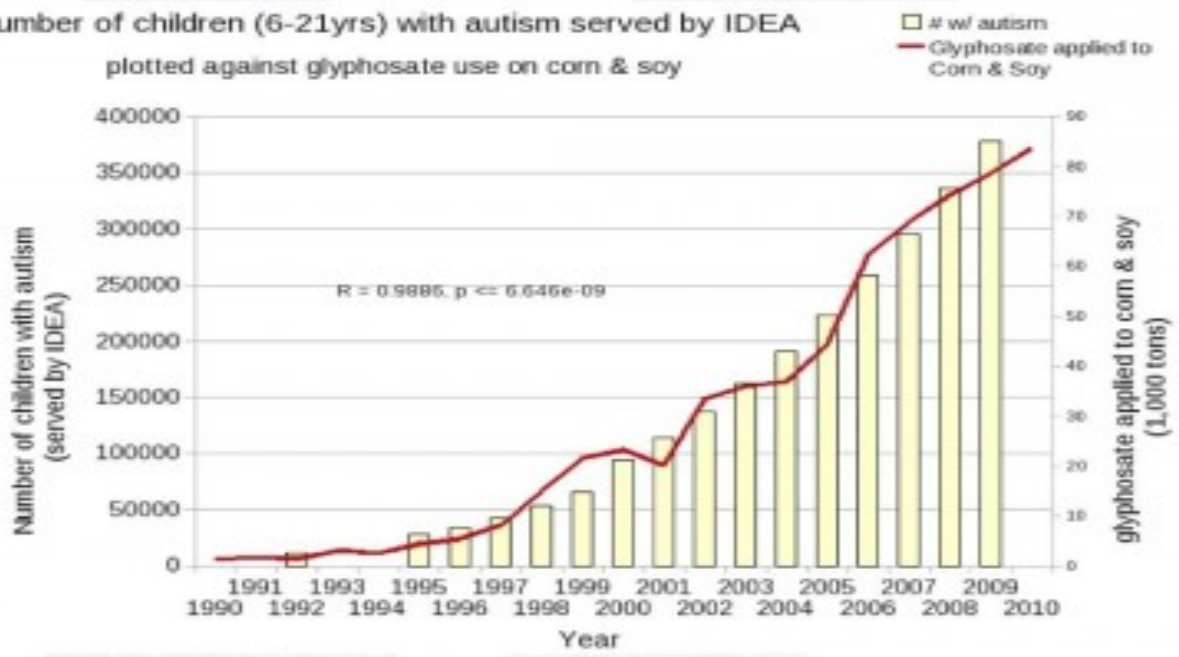
(1) The original "gut theory" study was flawed, based on 8 kids. Kids with ASD report more gastrointestinal issues but the "gut-brain" hypothesis has not been proved.

(2) Thimerosal was removed from European vaccines in 1991 and U.S. vaccines in 2001. Autism continued to increase.

(3) There is no evidence that autism is an immune-related disorder.

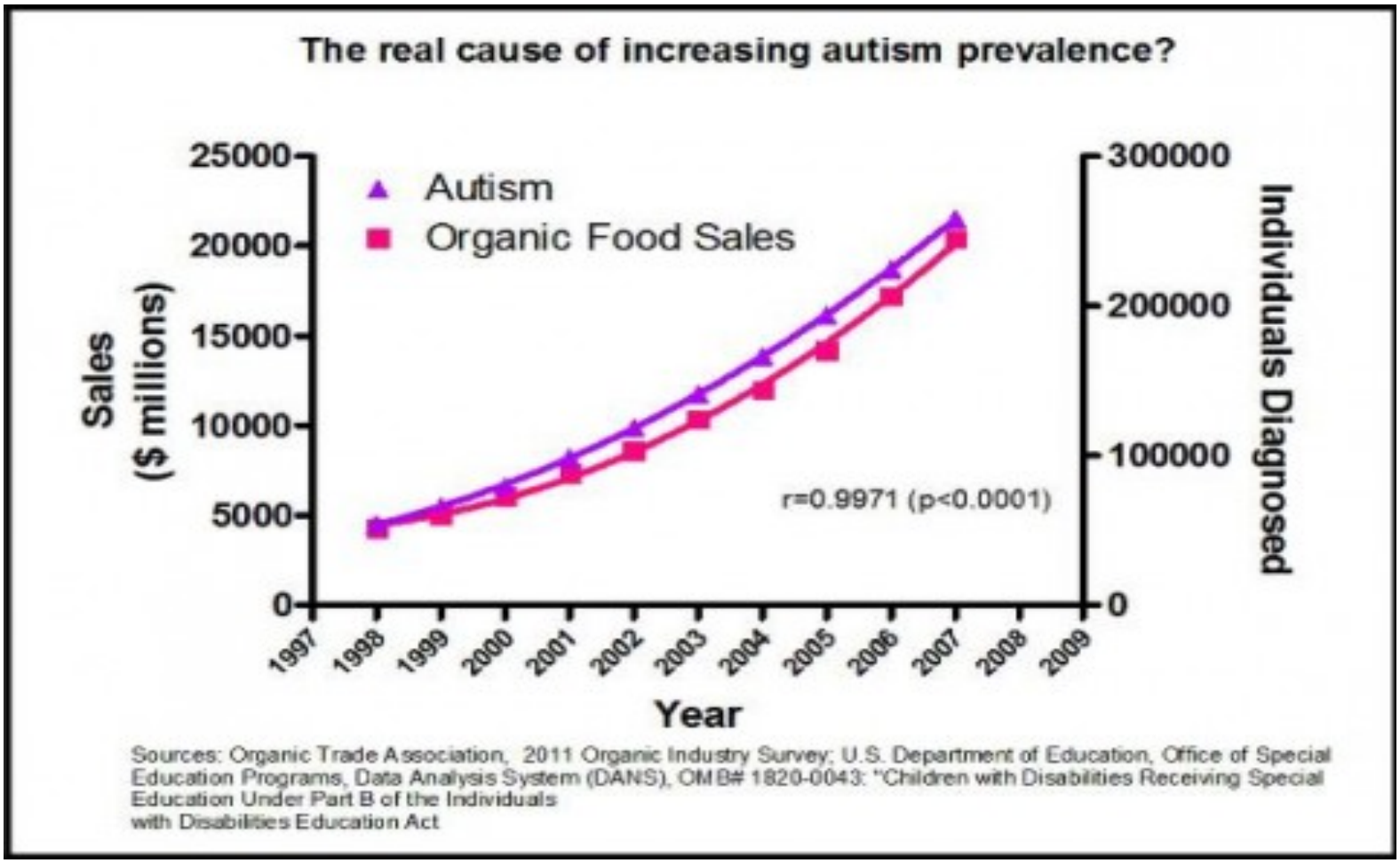
Correlation Is Not Causation

Glyphosate and Autism*

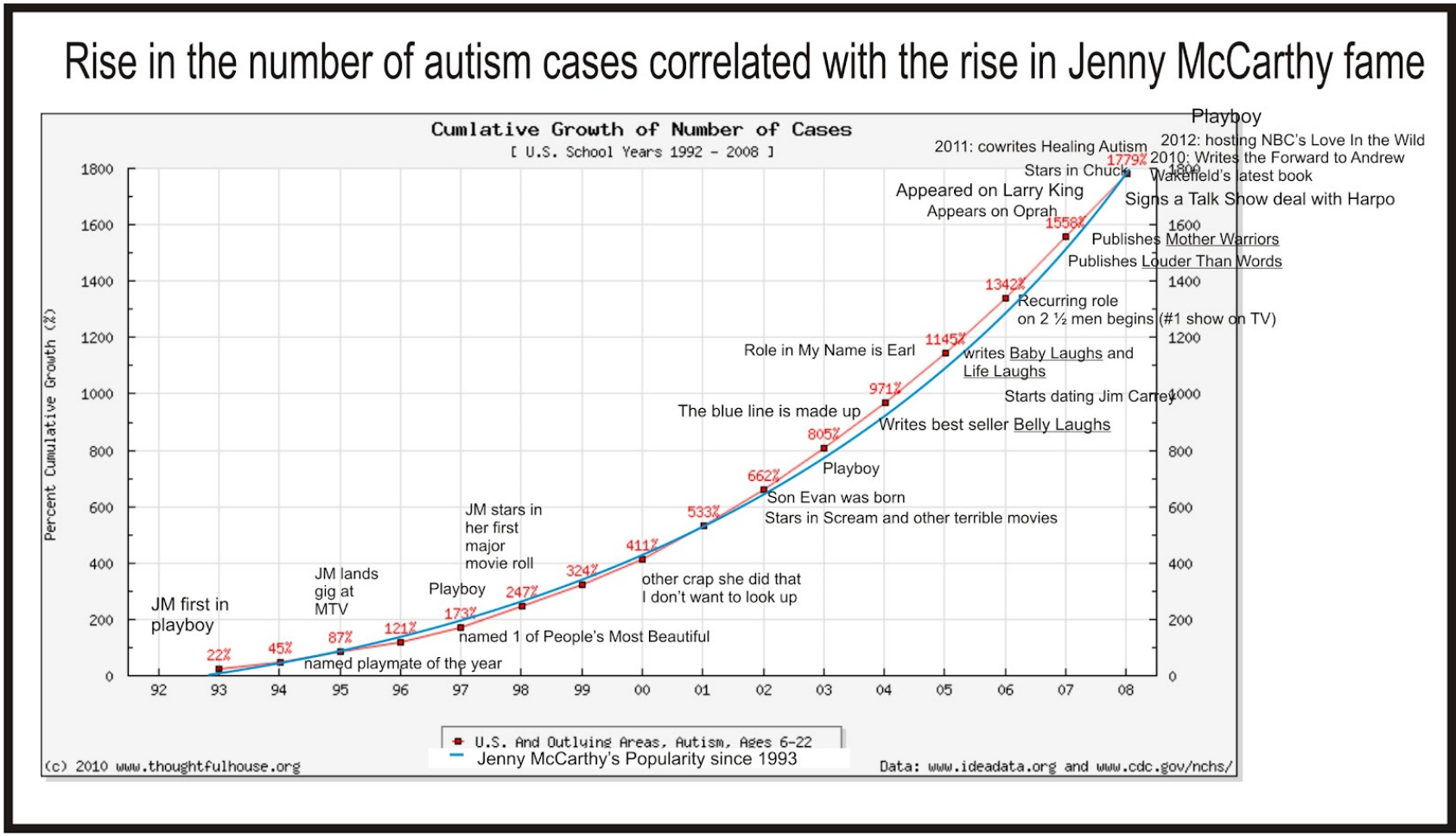


*Nancy Swanson, http://www.examiner.com/article/data-show-correlations-between-increase-neurological-diseases-and-gmos

Correlation Is Not Causation



Correlation Is Not Causation



What Causes Autism? Evidence for a genetic cause

4:1 ratio of males to females

XY = more genetic problems

Sibling Studies

Having an older sibling with autism created a 7x greater risk of autism in subsequent children.

What Causes Autism?
Evidence for a genetic cause

- 100 genetic glitches linked to the development of autism.
- 30 percent of the 85 sibling pairs in the study shared the same mutation, and about 70 percent did not.
- The sibling pairs who shared a genetic glitch were more similar to each other, in their habits and social skills, than those pairs whose genetic risks were different, the study found.

What Causes Autism? Evidence for a genetic cause

Twin Studies have found a higher occurrence of autism spectrum disorder between identical twins than fraternal twins.

What Causes Autism? Environmental Trigger Hypothesis

Theory –

Some children are born autistic and exhibit symptoms at as young as six months.

Some children develop normally and at around 18-26 months lose skills and “become autistic.”

Could there be an “environmental trigger” that causes gene mutations in the latter group, causing them to become autistic?

What Causes Aspergers?

If you do a web search for, “What Causes Aspergers” the results start with, “Aspergers is part of the ASD . . . ” and never answer the question.

If Aspergers and “classic autism” have the same cause, why do children with Aspergers have milder symptoms and later onset (age 8 versus age 3 or younger)?

Is Aspergers a “psychological construct” and not part of autism spectrum disorder?

Identification

I can’t think of much to add beyond what is in the guide.

Incidence

Why the increase in autism?

- Expanded definition (Aspergers)
- Greater awareness of ASD
- More places to get diagnosed
- More people who can diagnose ASD.

Is there an autism epidemic?

The number of children identified with ASD varied widely by community, from 1 in 175 children in areas of Alabama to 1 in 45 children in areas of New Jersey.

Is there an autism epidemic?

Percentage with IQ **less than** 70

2002 = 47%

2006 = 41%

2010 = 31%

Is there an autism epidemic?

Percentage with IQ **greater than** 85

2002 = 32%

2006 = 38%

2010 = 46%

Is there an autism epidemic?

"The reported increase is largely attributable to changes in diagnostic practices, criteria, referral patterns, availability of services, age at diagnosis, and public awareness."

Montana Data

1991 - Students with Autism

8

2013 - Students with Autism

1052

Primary #

An increase of over

13,050%

in 20 years.

Prior to 1991, there was no IDEA Autism category, students were classified as having Mental Retardation.

Three different criteria for autism in Montana

- **1991 through 1998**
- **1999 only**
- **2000 until today**

Three different criteria for autism in Montana

Prior to 2000, students with Asperger's or "autistic-like behavior" could not qualify as Autistic in Montana.

Criteria 1+2 1991-1999

Autism must have been present before age three.

Only since 2000 criteria change that

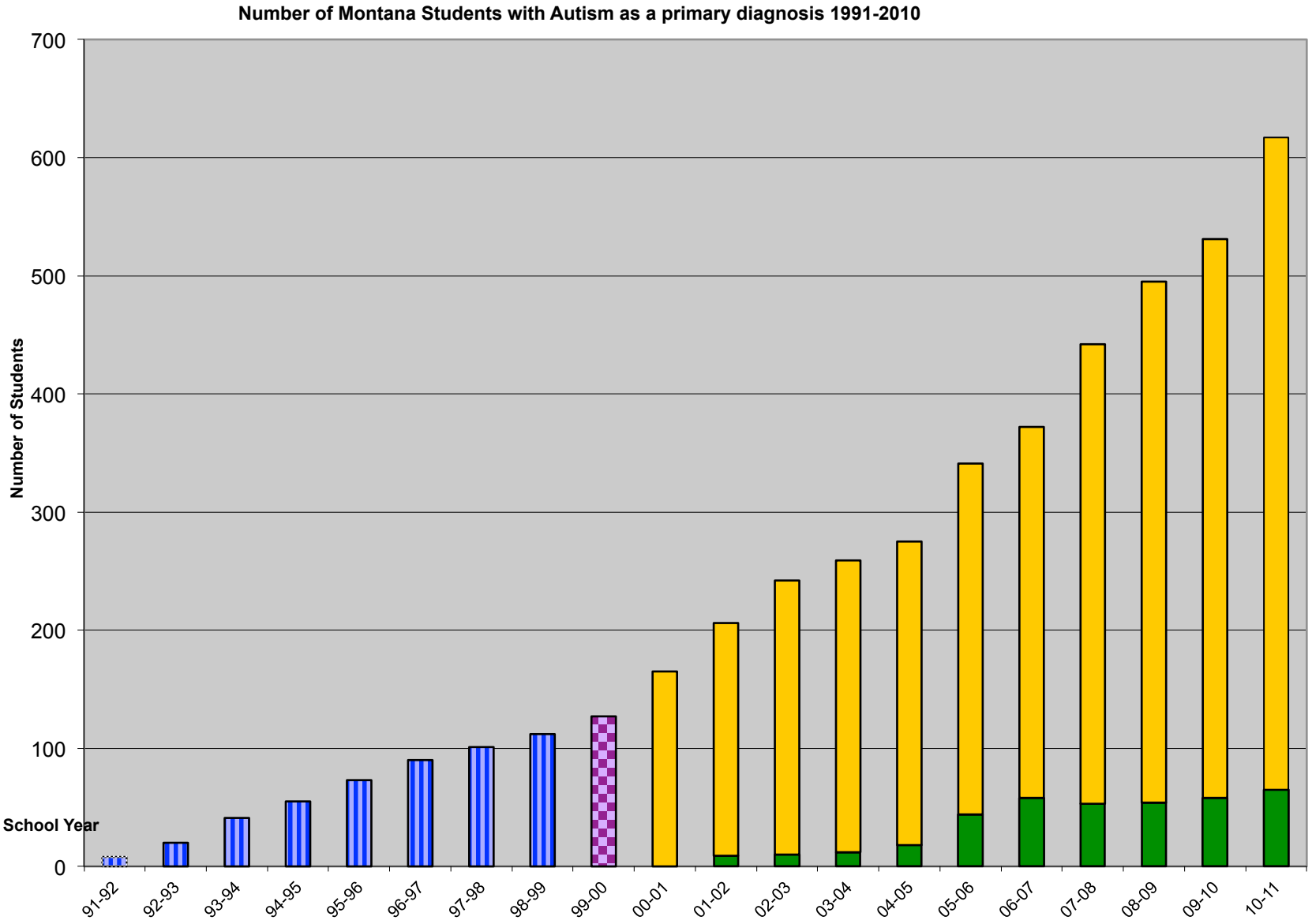
Asperger's = Autism in Montana

Criteria 3 2000 until . . .

No longer requires “onset” before age 3.

Beginning in 2001. . . the autism child count began to include kids aged 3-5.

Prior to 2001, 3-5 year olds could ONLY be a “Child With a Disability” for Child Count.

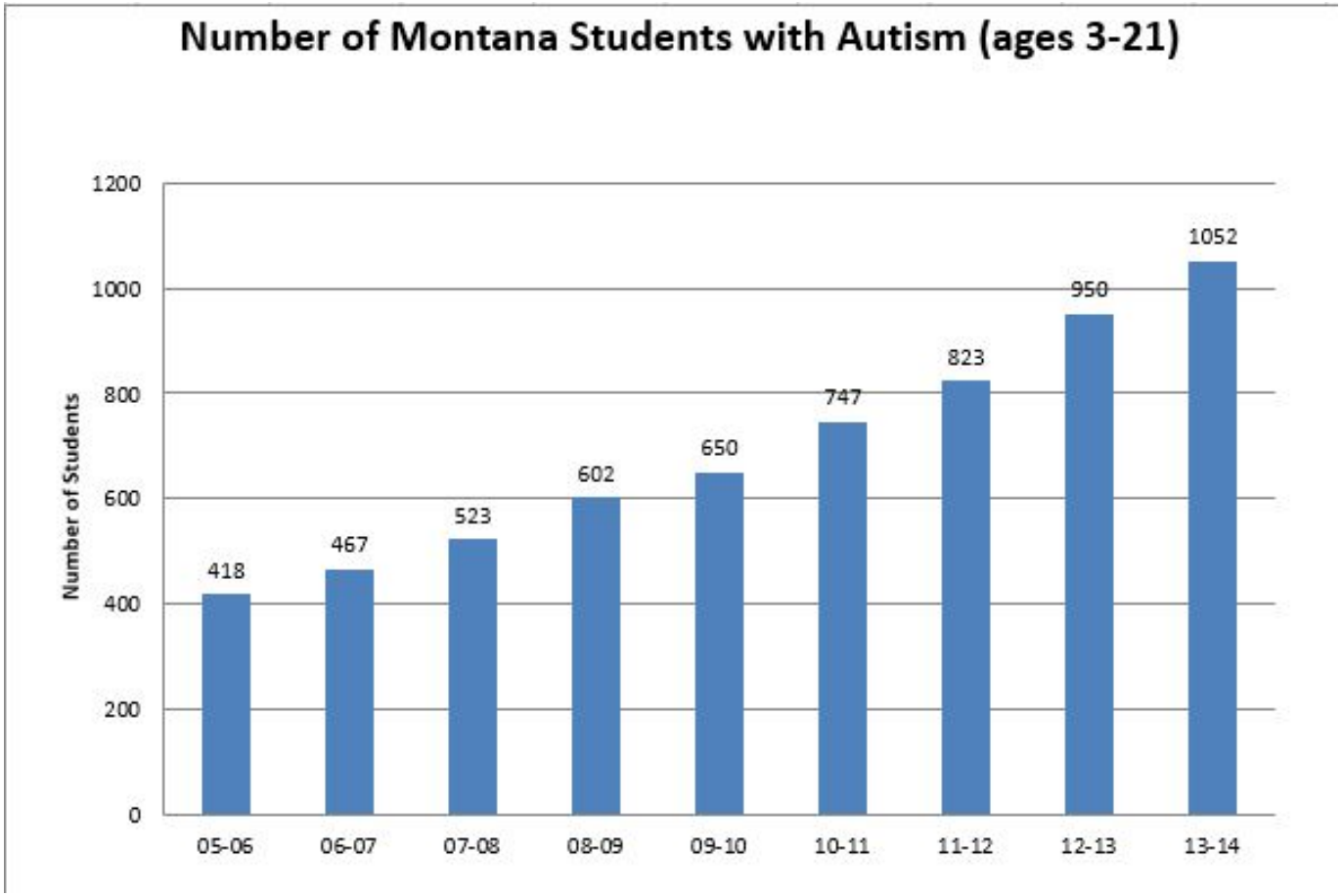

Number of Montana Students with Autism as a primary diagnosis 1991-2010
Number of Students
700
600
500
400
300
200
100
0
School Year
91-92
92-93
93-94
94-95
95-96
96-97
97-98
98-99
99-00
00-01
01-02
02-03
03-04
04-05
05-06
06-07
07-08
08-09
09-10
10-11

Comparing Criteria 1 and 2 data with Criteria 3 data to talk about an autism rate increase is like comparing apples and dump trucks.

What does the increase in autism look like using:

- the same criteria; and
- the age group (3-21)

Nine years = 152% increase



A few other bits of data:

3-5 year olds

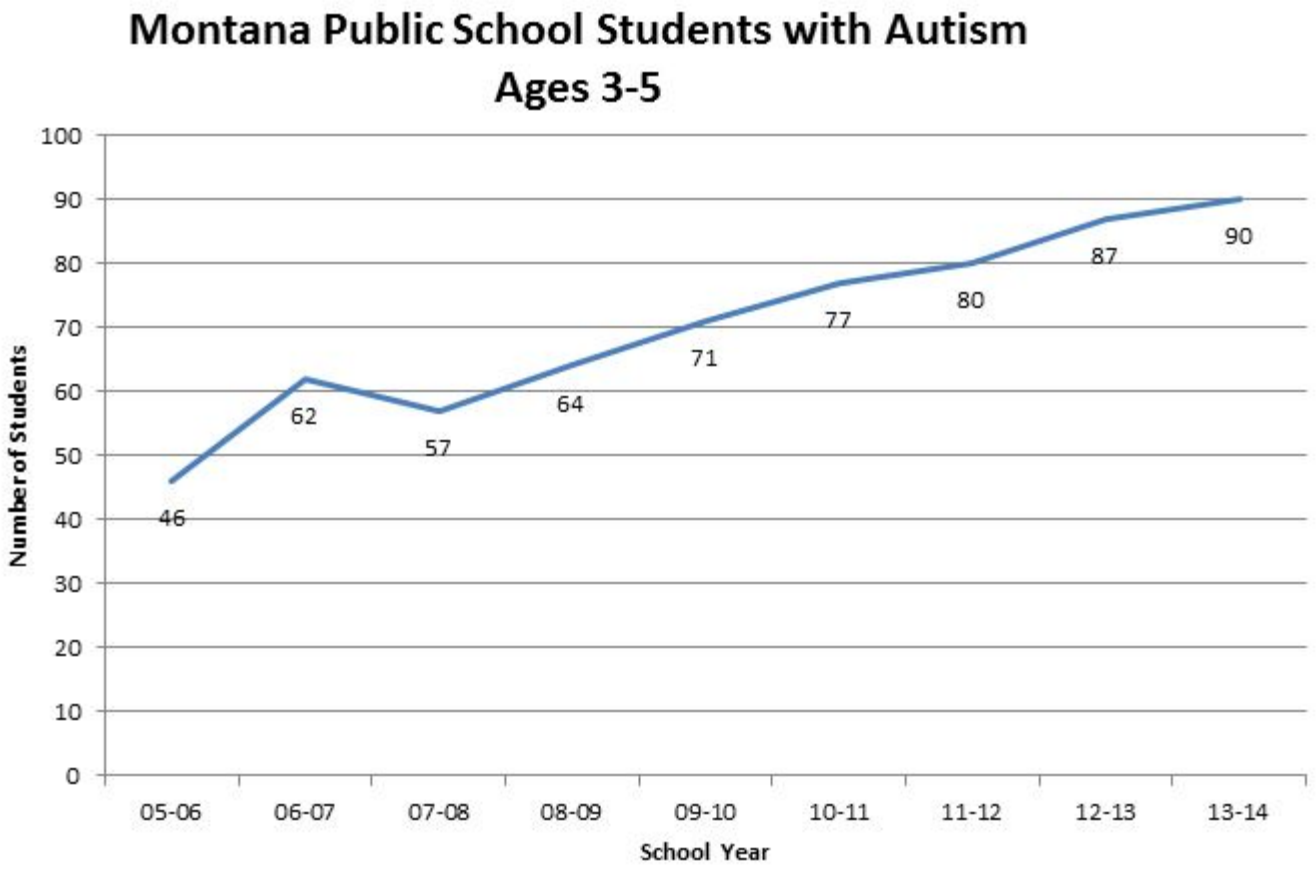
Cognitive Delay

Race

Gender

Where are these students?

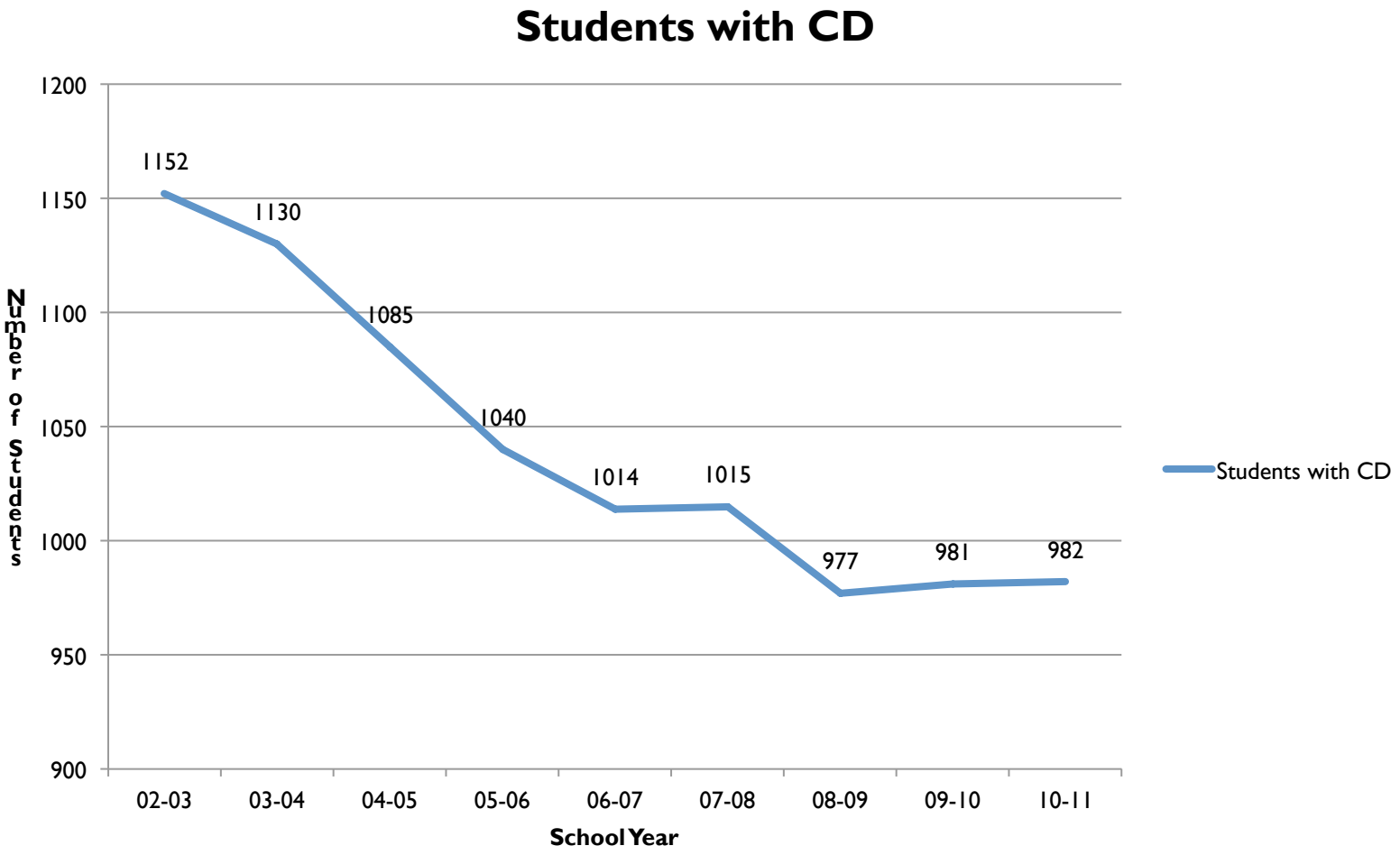
3-5 year-olds = 96% increase



That is a big increase for an age group of only three years. (3,4,5)

Screenings have become more available with the Children's Autism Waiver and Autism Insurance Bill.

Cognitive Delay



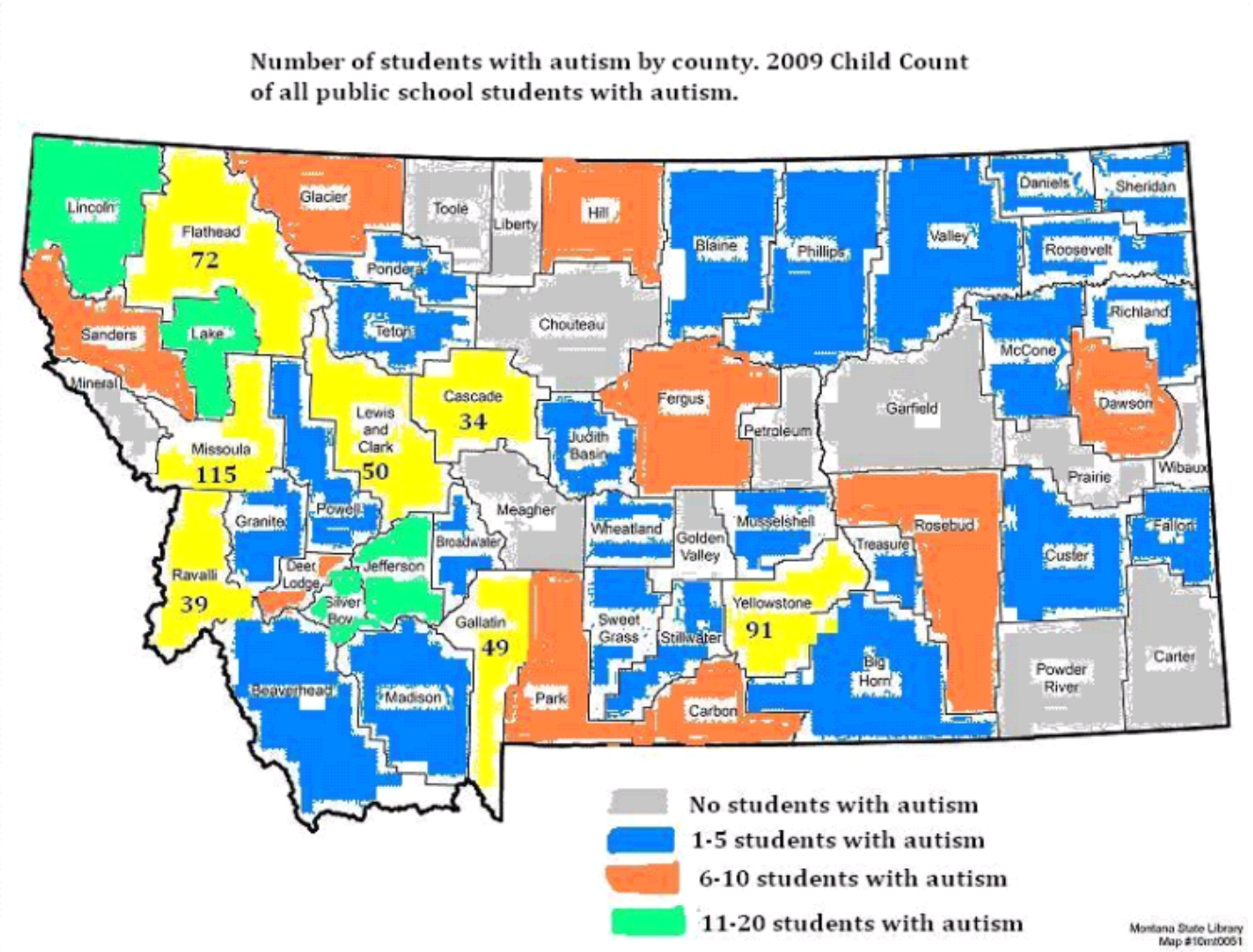
Cognitive Delay

15% decrease in students with Cognitive Delay from 2002 – 2010.

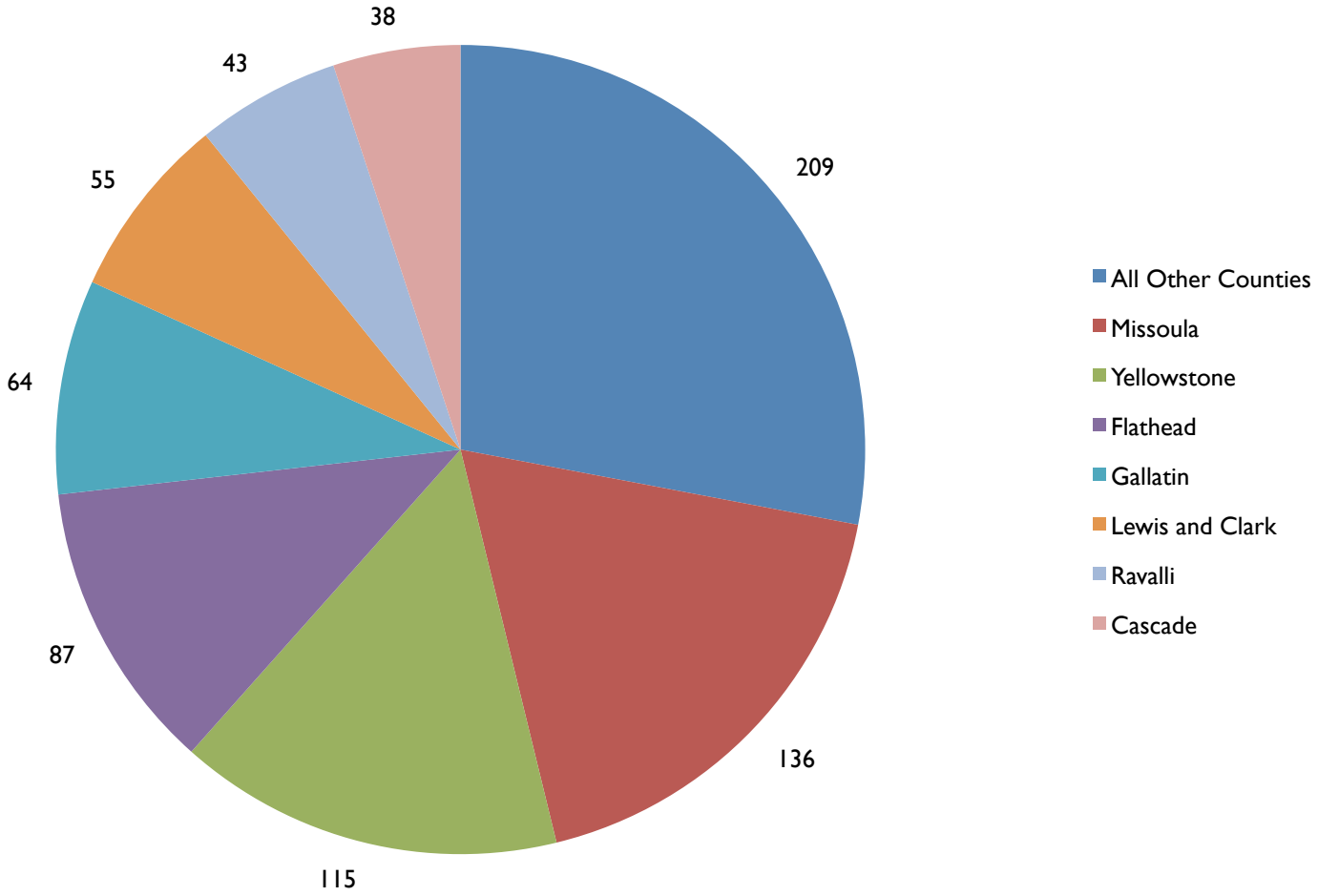
In 2011 the feds changed how they determine CD in Child Count. Now steady at ~1270 kids (2010-2013.)

Where are the Montana students with autism?

Where are the students with autism?



72% of students with autism live in seven counties.



Rate By County – 7 Largest

	Autism	# Sped	Percent
Cascade	57	1195	4.8
Flathead	113	1464	7.7
Gallatin	89	1088	8.2
Lewis & Clark	81	1142	7.1
Missoula	175	1664	10.5
Silver Bow	30	443	6.8
Yellowstone	156	2606	6.0

Why the variance in rate?

- Part C Agencies and others evaluating autism?
- District experience in evaluation of Asperger's?
- Fidelity to criteria?
- Autism Evaluation Team?

Treatments

What “Cures” Autism?

What is a “cure”?

That kids no longer exhibit “autistic behavior” by developing compensatory skills or hiding their differences?

There is no magic treatment to make the symptoms of autism go away.

What “Cures” Autism?

Wrong Planet Syndrome

As SLPs your goal is to help kids with ASD function on our planet.

Applied Behavior Analysis is the best “cure” we have now.

If you want training in ABA, send an email to ddoty@mt.gov with the subject line, “CSD student – online training.”

How to spot a bad therapy

What is the supposed “cause” of autism?

Is there science to support that?

Is the science more than anecdotal?

Is the science from a reliable source?

Is the science from more than one source?

How to spot a bad therapy

Does everyone evaluated for the treatment qualify for the treatment?

Is the science about autism?

Does the science include a control group?

What is the cost of a bad therapy?

- $$$
- Time
- Emotional Cost of Failure
- Social embarrasment

How to spot a bad therapy

What to do if the parent asks the school to support a bad therapy?

1. Doug Doty, ddoty@mt.gov 459-5303
2. Support it.
3. Don’t support it. (see #1 above)

Resources